## Comments to the August 2, 2011 Fifth Staff Draft Delta Plan, Chapter 7 Gilbert Cosio, MBK Engineers, September 30, 2011

- 1. Page 161, Lines 10-20. This paragraph describes the levees in the Delta and Suisun Marsh. The 1,335 miles of levees and 839,591 acres of land are confusing, because for the first time, the Suisun Marsh has been included with the Delta levees. It appears the number of levee miles is too large. This figure must include levees that are not flood control levees, but rather interior levees that control flooding between the managed wetland properties in the marsh. This number may also include levees that are shown on Figure 7-6. Somehow this figure shows levees that do not exist. It is unknown why the Department of Water Resources would publish a map like this. We suggest either removing Figure 7-6 or correcting it.
- 2. Pages 162 and 163. The bulk of these pages describe the flood risk in the Delta. We agree with the last paragraph that discusses that the risks must be quantified. However, more discussion should be added to inform the reader that the risk includes impacts that affect these impacts could be significantly larger than the value of the protected area. In addition, a discussion should be added that describes the fact that the risks to individual islands are all inter-related and that individual island risk cannot be quantified without quantifying the risk that failure of such islands adds to adjacent islands.
- 3. Page 163, lines 26-40, describe the ongoing flood management efforts by other agencies. This section should be expanded to describe the current status of the Delta Levees Program, which is currently funded by Propositions 84 and 1E. Even the most recent studies regarding Delta levees do not utilize data subsequent to 2005. Since that time and within the next two years, hundreds of millions of dollars will be spent through the Delta levees program; and therefore, discussion of the impact of these expenditures on the status of the Delta should be included. It is the status of the Delta following expenditures of Propositions 84 and 1E funds that will be the bulk of the "Delta Levees" as the Delta Plan would know them.
- 4. Page 165, lines 10-13, describe RRP1. This policy indicates that it does not apply to ecosystem restoration projects or any ongoing agricultural or flood management activities, unless they significantly decrease the existing level of flood protection. This is not good policy to exclude ecosystem restoration projects, which by definition could increase the roughness coefficient in floodways that have previously been farmed. Existing major floodways such as the Yolo Bypass already do not have the capacity for which they were designed; and therefore, no new projects should be approved without improving the floodway, or at the worst case, having a negative effect on the flood elevation.
- 5. Page 172, the bullet point between lines 9 and 16, describes that in the future, flood risk should be related to probability of flooding; and also, expected annual damage. It should be noted that much of the damage is expected or outside the Delta, as a result of impacts to water quality and water supply.

- 6. Page 173, under the topic of flood management investment, line 31 references Figure 7-6. As noted previously, this figure is erroneous in that is shows non-Project levees that do not exist or are not flood control levees. We recommend this figure be eliminated or corrected.
- 7. Page 175. This page contains Table 7-1. We recommend that under the "Class 2: HMP" column, that "Not Acceptable" be listed for the covered action describing agricultural-related non-residential on-farm structures without substantial employees. The reason we would recommend "Not Acceptable" is the fact that there appears to be a misunderstanding as to what the island structures and inhabitants consist of. Virtually all agricultural Delta islands have significant on-farm improvements; and periodically have a significant number of employees, so either this situation does not exist, or it is "Not Acceptable" as protected under the HMP minimum.
- 8. Page 178, lines 4-9, describe the amount of work necessary to raise all Delta levees to the PL 84-99 standards as requiring "significant" funding. We recommend evaluation of the funding required following expenditure of the Proposition 84 and 1E monies. "Significant" is a relative term; and we feel that following expenditure of these Proposition 84 and 1E funds over the next few years, the actual amount of work needed to be performed in the Delta Plan will not be significant.
- 9. Page 183, the bullet point that begins at line number 1, indicates that each district should annually determine its expected annual damage and loss of life values. The budgets for the reclamation districts are extremely limited. To require them to perform this calculation annually would not be feasible. We recommend additional investigation into the statewide damages caused by levee failure and also investigation into the additional risk to neighboring islands, should individual islands fail and not be reclaimed. This type of calculation is better performed by a larger entity, over the entire Delta. In addition, it is not necessary to perform this calculation or investigation annually.